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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,392	09/11/2003	Marko Kangasniemi		6927

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EXAMINER

SAVAGE, MATTHEW O

ART UNIT PAPER NUMBER

1723

DATE MAILED: 02/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,392

Applicant(s)

KANGASNIEMI ET AL.

Examiner

Matthew O Savage

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-12 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 13-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 6, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams '846.

With respect to claim 1, Adams discloses a filtering apparatus including an inlet channel 14 for flow to be filtered, an outlet channel 16 for filtered flow, a number of parallel filtering elements 34 to which flow to be filtered may be directed so that infiltration occurs through a jacket of an element, and a rotating washing organ 50 connecting alternatively to different elements for forming a discharge channel for back flushing of the elements generated with the pressure of the filtered flow, and a freewheel clutch 67 connected to a rotating axle 47 of the washing organ, wherein the clutch converts reciprocating movement generated with and maintained by pressure of the flow in the apparatus (e.g., via conduit 74) and alternating lower pressure (e.g., via drain connection 87) into a continuously parallel, stepping rotary movement of the axle (e.g., via cylinder 73 and associated connections shown in FIG. 6).

Concerning claim 2, Adams discloses a coupling organ 67 driving the rotating axle of the washing organ, which is in alternately in sliding contact with the axle and which alternately locks onto the axle for rotating the axle, the coupling organ being articulated to the piston 72 reciprocating on the alternating pressure.

Concerning claim 5, Adams discloses the filtering elements 34 as being cylindrical and arranged on a circumference surrounding the axle of the washing organ (see FIGS. 1-2).

As to claim 6, Adams discloses the washing organ as being a washing arm transverse to the rotating axle (see FIG. 1).

Claim 9 relates to intended use and carries no patentable weight.

With respect to claim 10, Adams discloses a method of washing filtering elements in a filtering apparatus which includes an inlet channel 14 for flow to be filtered, an outlet channel 16 for filtered flow, and a number of parallel filtering elements 34 into which the flow to be filtered is directed so that infiltration occurs through an element jacket, the method of washing being achieved by connecting different elements alternatively to a washing organ 50 so that washing is carried out by a back flushing directed to the washing organ with the pressure of the filtered flow, and a rotating axle 47 of the washing organ is rotated in a stepping manner continuously in the same direction using a reciprocating mechanism 73, the reciprocating movement of which is generated with and maintained by the pressure of the flow prevailing in the apparatus (e.g., via connection 74) and alternating lower pressure (e.g., via drain connection 87).

Regarding claim 11, Adams discloses the axle of the washing organ as being rotated with the pressure of the filtered flow (e.g., the "main water supply" which would include the "filtered flow", see line 15 of col. 4) and with the lower pressure (e.g., the drain) alternating with the filtered flow pressure.

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With respect to claim 12, Adams discloses the steps of the washing organ as being generated with a freewheel clutch 67 including a coupling organ 67 driving the rotating axle of the washing organ, the coupling organ being in alternately sliding contact with the axle for rotating the axle, the moving of the coupling organ being carried out with a piston 72 articulated with the coupling organ, the piston being moved back and forth by connecting the said pressures of different elements alternately to different sides of the piston.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams '846 in view of Adams '248.

With respect to claim 7, Adams '846 fails to specify two or more washing organs connected to the same rotating axle. Adams '248 discloses two or more washing organs 124, 124' and suggests that the organs provide thorough backwashing for two concentric arrays of relatively long cylindrical filtering elements. It would have been obvious to have modified the '846 apparatus so as to have included two or more

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washing organs in order to provide through backwashing for two concentric arrays of relatively long filter elements.

Concerning claim 8, a washing organ at both ends of the parallel filtering elements that are made as one piece with the rotating axle.

Claims 3, 4, and 13-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Adams '846 is the closest prior art, however, the reference fails to teach or suggest:

The limitation of the apparatus including channels and related control valves for coupling the pressure of the filtered flow and the lower pressure to different sides of the piston without operator intervention as recited in claim 3;

The means for providing the reciprocating movement without operator intervention as recited in claim 13;

The limitation of the clutch operatively engaging valve means during movement of the clutch to direct pressure of the filtered flow and the lower pressure alternately to different sides of the reciprocating mechanism without operator intervention as recited in claim 16;

The limitation of the reciprocating mechanism reciprocating without operator intervention as recited in claim 19;

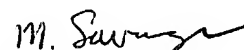
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The limitations of the reciprocating mechanism moving the clutch in one direction into operative engagement with the control means, the control means then redirecting the pressure of the filtered fluid and the lower pressure to alternate sides of the reciprocating mechanism to cause the clutch to move in an opposite direction and again into operative engagement with the control means as recited in claim 20;

The limitations of the clutch engaging a control valve during movement of the clutch and the control valve directing the pressure of the filtered fluid and the lower pressure to alternate sides of the piston to cause the piston to reciprocate without operator intervention as recited in claim 21.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 6:00am-2:30pm.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Matthew O Savage
Primary Examiner
Art Unit 1723

Mos
January 21, 2004